

We claim:

1. A method of assessing the risk of a patient for developing an adverse drug reaction in response to a drug, comprising determining the presence of an HLA-B allele selected from the group consisting of HLA-B* 1502, HLA-B*5801 and HLA-B*4601,
5 wherein the presence of the HLA-B allele is indicative of a risk for an adverse drug reaction.
2. The method of claim 1 wherein the drug is selected from the group consisting of carbamazepine, allopurinol, phenytoin, sulfasalazine, amoxicillin, ibuprofen and ketoprofen.
- 10 3. The method of claim 1 wherein the drug is carbamazepine.
4. The method of claim 1 wherein the drug is allopurinol.
5. The method of claim 1 wherein the adverse drug reaction is Stevens-Johnson syndrome or toxic epidermal necrolysis.
6. The method of claim 1 wherein the adverse drug reaction is Stevens-Johnson
15 syndrome or toxic epidermal necrolysis, the drug is carbamazepine, and the allele is HLA-B*1502.
7. The method of claim 1 wherein the adverse drug reaction is Stevens-Johnson syndrome or toxic epidermal necrolysis, the drug is allopurinol, and the allele is HLA-B*5801.
- 20 8. The method of claim 1 wherein the presence of the allele is determined by using an oligonucleotide that specifically hybridizes with the nucleic acid coding for the allele.
9. The method of claim 1 wherein the presence of the allele is determined by using DNA prepared from the peripheral blood of the patient.

10. The method of claim 1 wherein the presence of the allele is determined by using RNA, protein, cells or sera prepared from the peripheral blood of the patient.
11. The method of claim 1 wherein the presence of the allele is determined by assaying for an equivalent genetic marker of the allele, wherein the presence of the equivalent genetic marker is indicative of the presence of the allele.
12. The method of claim 11 wherein the equivalent genetic marker is selected from the group consisting of HLA-DRB1*1202, Cw*0801, Cw*0806, A*1101, MICA*019 and Cw*0302.
13. A method for developing a therapy for a cutaneous adverse reaction induced by a drug, comprising screening candidate medicines using an assay in which at least one HLA-B allele is a target, wherein the HLA-B allele is selected from the group consisting of HLA-B*1502, HLA-B*5801, and HLA-B*4601.
14. The method of claim 13 wherein the cutaneous adverse reaction is Stevens-Johnson syndrome or toxic epidermal necrolysis.
15. The method of claim 13 wherein the drug is selected from the group consisting of carbamazepine, allopurinol, phenytoin, sulfasalazine, amoxicillin, ibuprofen and ketoprofen.
16. The method of claim 13 wherein the drug is carbamazepine or allopurinol.
17. The method of claim 13 wherein the adverse reaction is Stevens-Johnson syndrome or toxic epidermal necrolysis, the drug is carbamazepine, and the allele is HLA-B*1502.
18. The method of claim 13 wherein the adverse reaction is Stevens-Johnson syndrome or toxic epidermal necrolysis, the drug is allopurinol, and the allele is HLA-B*5801.
19. The method of claim 13 wherein the assay comprises providing a cell that expresses the HLA-B allele.

20. A method of pharmacogenomics profiling comprising determining the presence of at least one HLA-B allele selected from the group consisting of HLA-B*1502, HLA-B*5801, and HLA-B*4601.
21. The method of claim 20 wherein the presence of both HLA-B* 1502 and HLA-B*5801 is determined.
22. The method of claim 20 further comprising determining the presence of at least one genetic factor selected from the group consisting of thiopurine methyltransferase and the genes for the long-QT syndrome.
23. The method of claim 20 wherein the presence of the allele is determined by using an oligonucleotide that specifically hybridizes with the nucleic acid coding for the allele.
24. The method of claim 20 wherein the presence of the allele is determined by using DNA prepared from the peripheral blood of the patient.
25. The method of claim 20 wherein the presence of the allele is determined by using RNA, protein, cells or sera prepared from the peripheral blood of the patient.